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REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, the applicant respectfully submits that the pending claims are not anticipated under 35 U.S.C. § 102 and are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicant respectfully requests that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.

The applicant will now address each of the issues raised in the outstanding Office Action.

Rejections under 35 U.S.C. § 102

Claims 1, 2, 5-7, 25-28 and 30 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,987,538 ("the Nakata patent"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

First, since claims 6 and 30 have been canceled, this ground of rejection is rendered moot with respect to these claims.

The Nakata patent discloses a multipoint auto-focus system in which a focus state of a plurality of objects at different positions in a plurality of focus detection

zones in an imaging surface is detected. The multipoint auto-focus system employs a phase difference system of multiple-point distance measuring sensor (See Fig. 2, and col. 6, lines 61-67 of the Nakata patent.), wherein one of a plurality of points is selected, which satisfies the following condition: a subject is present which is the closest to the sensor, of a plurality of subjects, and which has **a contrast value higher than a predetermined value** (See the abstract, col. 3, lines 44-48, col. 21, lines 56-62, and Fig. 13, step S411 (Not "Low Contrast") of the Nakata patent.). Hence, the Nakata patent merely concerns a distance measuring device based on a phase difference system, and not based on a principle of triangular distance.

In the phase difference system of the Nakata patent, after detecting the point satisfying the above condition, a defocus amount is detected (See, e.g., Fig. 9, S211 of the Nakata patent.), and a lens is driven to perform focusing, in accordance with the defocusing amount (See col. 7, lines 4-25.).

From the above, it is clear that the Nakata patent adjusts a focal position of the photographing lens on **a point which is the closest to the distance measuring sensor if it has a contrast value higher than a predetermined value, and not in an area which has a highest contrast value on a point which is the closest to the distance measuring device.** Further, in the Nakata patent, a contrast to be detected is not applied to focusing. Rather, a contrast is detected on a plurality of points in the focus zones on a photographing field **in order to determine the main subject/point satisfying the above stated condition.** Once the main subject/point is

determined, a defocus amount is determined for that point which is applied to focusing.

On the other hand, independent claim 1, as amended, concerns a focusing apparatus which comprises a distance-measuring device which measures distances of a plurality of points in a photographing field based on a principle of triangular distance measurement to detect a subject which is the closest to the focusing apparatus of the subjects in the photographing field. (See, e.g., Fig. 1A, Fig. 11 elements 32a, 32b, 33a, 33b and 34 and page 28, lines 4-17 of the present application). A focal position of the photographing lens is then adjusted in a position which has a highest contrast of the subject image signal in an image pickup area corresponding to a point indicating a shortest distance of an output of the distance-measuring device in the plurality of points. (See, e.g., Fig. 4, Fig. 5, step S28 and Fig. 6 of the present application.)

Thus, independent claim 1 is not anticipated by the Nakata patent for at least the foregoing reason. Since claim 2 depends from claim 1, it is similarly not anticipated by the Nakata patent.

Independent claim 5 is not anticipated by the Nakata patent because the Nakata patent does not teach a control section which stops the focusing lens in a plurality of focusing lens positions in accordance with a plurality of combinations obtained by a calculation control section, and which obtains the contrast of the subject image signal outputted from the image pickup area of the combination corresponding to each focusing lens position and the contrast of the subject image signal outputted

from the image pickup device in all the areas of the image pickup device to determine the position of the focusing lens. Hence, claim 5 uses **the detected contrast of the subject image for focusing**, whereas the Nakata patent uses **the detected contrast for determine a main subject/point having a contrast value higher than a predetermined value**.

Thus, independent claim 5 is not anticipated by the Nakata patent for at least the foregoing reason. Since claim 7 depends from claim 5, it is similarly not anticipated by the Nakata patent.

With respect to independent amended claim 25, the Nakata patent merely discloses the phase difference system of distance-measurement apparatus, and the Watanabe patent (discussed below) does not disclose a combination of the mountain-climbing AF and another distance measurement. Furthermore, these patents do not disclose that **the first auto-focus operation or the second auto-focus operation is selected in accordance with the ratio of a low brightness portion to the entire brightness portion, which is indicated by a subject image signal from the image pickup device or the sensors for distance measurement, or the brightness distribution of a subject image as recited in claim 24**.

Specifically, independent amended claim 25 recites a camera including a focusing apparatus comprises: **a selecting section which detects the subject image signal obtained by the image pickup device or a brightness distribution of the pair of subject image signals obtained by the sensors for distance measurement (See, e.g., Fig. 24, steps S133 and S134.) to select either one**

of the first (See, e.g., Fig. 24, steps S134-S138.) and second (See, e.g., Fig. 24, steps S134 and S140.) auto-focus sections in accordance with a ratio of a low-brightness portion in the detected brightness distribution (See, e.g., Fig. 24 and pages 63-66.). In contrast, the Nakata does not teach such a selecting section which detects a brightness distribution of the pair of subject image signals to select either one of the first (based on contrast detection) and second (based on distance-measurement) auto-focus sections in accordance with a ratio of a low-brightness portion in the detected brightness distribution.

Thus, independent claim 25 is not anticipated by the Nakata for at least the foregoing reason. Since claims 26-28 depend, either directly or indirectly, from claim 25, these claims are similarly not anticipated.

#### **Rejections under 35 U.S.C. § 103**

Claims 3, 4 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Nakata patent in view of U.S. Patent No. 7,184,090 ("the Watanabe patent"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

First, since claims 3 and 4 have been canceled, this ground of rejection is moot with respect to these claims.

The Watanabe patent discloses focusing (mountain-climbing AF) based on contrast detection (See, e.g., Fig. 20, col. 2, lines 1-7, lines 22-28; of the Watanabe patent.), but does not disclose a combination of the mountain-climbing AF and another distance measurement.

As stated above, the Nakata patent merely discloses the phase difference system of a distance-measurement apparatus, and the Watanabe patent merely discloses a focusing based on contrast detection but does not disclose a combination of the maintain-climbing AF and another distance measurement. Therefore, it cannot be derived from the Watanabe patent, even by a person with ordinary skill in the art, that a specific area in the image pickup device is selected based on (i) the result of the distance measurement based on a principle of triangular distance measurement, and/or (ii) the contrast of the subject image signal outputted from the image pickup device.

Independent claim 8, as amended, recites a focusing apparatus comprising: an image pickup section which outputs a subject image incident via the photographing lens, and **detects contrast information regarding an entire area of a photographing field and part of the entire area of the photographing field** (See, e.g., Fig. 9, steps S44-S45, S46-S47, S49, and S50 of the present application.); **a distance-measuring section which performs measurement to determine a focal position with respect to a plurality of points in a photographing field based on a principle of triangular distance measurement** (See, e.g., Fig. 1A, Fig. 11, elements 32a, 32b, 33a, 33b and 34, and Page 28, lines 4-17 of the present application.); and **a determining section which moves the photographing lens to a plurality of focal positions corresponding to a plurality of distance measurement results of the distance-measuring section and which determines an area to execute a final mountain climbing AF based on the contrasts information detected by the**

*image pickup section and the focal position determined by the distance measuring section* (See, e.g., Fig. 9 of the present application, and especially steps S41-S48, which characterize the determining section which determines an area to execute a final mountain-climbing AF, and steps S49-S54, which execute the final mountain-climbing AF.).

In contrast, nowhere does the Nakata patent, the Watanabe patent, or their combination teach or suggest such a focusing apparatus. Rather, the Nakata patent merely discloses the phase difference system of a distance-measurement apparatus, and the Watanabe patent merely discloses a focusing based on contrast detection. Neither discloses a combination of the maintain-climbing AF and another distance measurement.

Thus, independent claim 8 is not rendered obvious by the Nakata and Watanabe patents for at least the foregoing reason.

Claims 9-24 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Nakata patent in view of U.S. Patent No. 6,806,905 ("the Morimoto patent"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

First, since claims 15-20 have been canceled, this ground of rejection is rendered moot with respect to these claims.

With respect to independent claim 9, as stated above, the Nakata patent merely discloses the phase difference system of distance-measurement apparatus, and the Watanabe patent does not disclose a combination of

the mountain-climbing AF and another distance measurement.

The Morimoto patent discloses radiation of fill-in light (See, e.g., Fig. 3, element 5 of the Morimoto patent.), but does not disclose that the **first and third auto-focus operation are selectively performed (switching between them is effected) in accordance with the result of the second auto-focus operation as recited in independent claim 9, as amended.**

Specifically, independent claim 9 recites a camera including a focusing apparatus comprising: **a CPU which selectively executes a first auto-focus operation of detecting a contrast state based on the subject image signal processed by the image processing circuit to adjust a focus of the photographing lens, a second auto-focus operation of performing a distance-measuring operation by the distance-measuring device in a non-irradiation state of the auxiliary light for distance measurement to adjust the focus of the photographing lens in accordance with a result of the distance-measuring operation, and a third auto-focus operation of performing the distance-measuring operation by the distance-measuring device in an irradiation state of the auxiliary light for distance measurement to adjust the focus of the photographing lens in accordance with the result of the distance-measuring operation, wherein the CPU first executes the second auto-focus operation (See, e.g., Fig. 14, step S67 which is the second auto-focus operation.), and then executes the first auto-focus operation, when the main subject is separated from the camera by a distance shorter than a predetermined distance after the second auto-focus operation (See,**



e.g., Fig. 14, step S66 which determines that the main subject is separated from the camera by a distance shorter than a predetermined value. Thus step S68 is the second auto-focus operation), **and executes the third auto-focus operation, when an output of each of the sensors for distance measurement has a level lower than a predetermined level after the second auto-focus operation** (See, e.g., Fig. 14, step S62 which determines that an output of each of the sensors for distance measurement has a level lower than a predetermined level. Thus step S69 irradiates the main subject with an auxiliary light allowing distance measuring steps S72 and S73 for respective focus adjustment of the photographing lens.)). In contrast, the Nakata, Watanabe and the Morimoto patents, either taken alone or in combination, neither teach, nor suggest, such a focusing apparatus.

Thus, independent claim 9 is not rendered obvious by the Nakata, Watanabe and Morimoto patents for at least the foregoing reason. Since claims 10-13 depend, either directly or indirectly, from claim 9, these claims are similarly not rendered obvious.

With respect to claims 14 and 21, the Nakata patent merely discloses the phase difference system of distance-measurement apparatus, and the Watanabe patent does not disclose a combination of the mountain-climbing AF and another distance measurement. Furthermore, the Morimoto patent discloses radiation of fill-in light, but does not disclose that plurality of distance-measuring means combined as in claims 14 and 21.

Specifically, independent claim 14, as amended, recites a camera including a focusing apparatus

comprising: a first auto-focus section which adjusts a focus of the photographing lens based on a contrast of a subject image obtained via the photographing lens; a second auto-focus section which adjusts the focus of the photographing lens based on a pair of subject images obtained via the pair of optical systems; **a judging section which judges whether or not an auto-focus operation by the first auto-focus section is appropriate based on contrasts of the subject images** (See, e.g., Fig. 20, step S123 where if the contrast is low, then a first auto-focus operation is carried out.); and **a control section which operates the first auto-focus section**, when the judging section judges that the auto-focus operation by the first auto-focus section is appropriate (See, e.g., Fig. 20, step S125 where a first auto-focus operation is carried out.) and which **operates both the second auto-focus section and the flash light irradiating section** (See, e.g., Fig. 20, step S124 where both a second auto-focus operation and the flash light irradiation is carried out.), when the judging section judges that the auto-focus operation by the first auto-focus section is inappropriate.

In contrast, the Nakata, Watanabe and the Morimoto patents, either taken alone, or in combination, neither teach, nor suggest, such a focusing apparatus. In particular, the Nakata patent merely discloses the phase difference system of a distance-measurement apparatus and a judging section which judges which of a plurality of focus detection zones in an imaging surface is selected. (See col. 3, lines 36-55 and col. 20, lines 7-59 of the Nakata patent.) The Nakata patent does not teach a first auto-focus operation, a second auto-focus operation, a

judging section which judges whether or not an auto-focus operation by the first auto-focus section is appropriate based on contrasts of the subject images, and a control section which operates a first auto-focus operation or both a second auto-focus operation and a flash light irradiating section based on the judgment of the judging section. The Watanabe and Morimoto patents do not compensate for this deficiency of Nakata patent.

Thus, independent claim 14 is not rendered obvious by the Nakata, Watanabe and Morimoto patents for at least the foregoing reason.

Independent claim 21, as amended, recites a camera including a focusing apparatus comprising: a first auto-focus section; a second auto-focus section; a distance-measuring device which uses a pair of subject image signals acquired via the pair of optical systems to perform distance measurement; a flash light irradiating section which irradiates a subject with a flash light; a judging section which judges whether or not the pair of subject image signals obtained via the pair of optical systems or the subject image signal acquired by the image pickup device is appropriate for a distance-measuring operation of the distance-measuring device (See, e.g., Fig. 14, step S62 where a judgment is made on whether the image is good, thus appropriate for distance-measuring S63, or if the image needs to be irradiated with a flash light S69.); and a control section which irradiates the subject with the flash light in accordance with a judgment result of the judging section by the flash light irradiating section (See, e.g., Fig. 14, step S62 where if the image is no good, then the flow proceeds to S69

where the main subject is irradiated with flash light.) and which performs the focusing of the photographing lens preferentially by the second auto-focus section.

In contrast, the Nakata, Watanabe and Morimoto patents, either taken alone or in combination, neither teach, nor suggest, such a focusing apparatus. In particular, the Nakata patent merely discloses the phase difference system of a distance-measurement apparatus and a judging section which judges which of a plurality of focus detection zones in an imaging surface is selected. (See col. 3, lines 36-55 and col. 20, lines 7-59 of the Nakata patent.) The Nakata patent does not teach a **judging section which judges whether or not the pair of subject image signals obtained via the pair of optical systems or the subject image signal acquired by the image pickup device is appropriate for a distance-measuring operation of the distance-measuring device, nor does it teach a control section which irradiates the subject with the flash light in accordance with a judgment result of the judging section by the flash light irradiating section.** The Watanabe and Morimoto patents do not compensate for this deficiency of Nakata patent.

Thus, independent claim 21 is not rendered obvious by the Nakata, Watanabe and Morimoto patents for at least the foregoing reason.

Independent claim 22 recites a camera including a focusing apparatus comprising: **a control section** (See, e.g., Fig. 14, decision steps S74 and S75.) **which determines whether to continue focusing control by a contrast type focusing section** (See, e.g., Fig. 14, steps S76-S80 (mountain-climbing AF).) **or to change to the**

**focusing control to determine the focusing position based on the distance measured by the distance-measuring section (See, e.g., Fig. 14, step S81.), based on the plurality of subject image signals acquired by the distance-measuring section when the subject is irradiated with the auxiliary light by the flash section (See, e.g., Fig. 14, steps S69 and S73.).**

On the other hand, the Nakata, Watanabe and Morimoto patents, either taken alone or in combination, neither, teach, nor suggest such a control section which determines what kind of focusing technique to use in a focusing apparatus of independent claim 22. In particular, as stated above, the Nakata patent merely discloses the phase difference system of a distance-measurement apparatus and a judging section which judges which of a plurality of focus detection zones in an imaging surface is selected. (See col. 3, lines 36-55 and col. 20, lines 7-59 of the Nakata patent.) The Watanabe and Morimoto patents do not compensate for this deficiency of Nakata patent.

Thus, independent claim 22 is not rendered obvious by the Nakata, Watanabe and Morimoto patents for at least the foregoing reason. Since claim 23 depends from claim 22, it is similarly not rendered obvious.

With respect to claim 24, the Nakata patent merely discloses the phase difference system of distance-measurement apparatus, and the Watanabe patent does not disclose a combination of the mountain-climbing AF and another distance measurement. Furthermore, these patents do not disclose that **the first auto-focus operation or the second auto-focus operation is selected**

**in accordance with a subject image signal from the image pickup device or the brightness distribution of a subject image as recited in claim 24.**

Specifically, independent claim 24 recites a camera including a focusing apparatus comprising: **a CPU which detects the subject image signal processed by the image processing circuit or a brightness distribution of the pair of subject images detected by the sensors for distance measurement (See, e.g., Fig. 24, steps S133 and S134.) to select either one of the first and second auto-focus operations based on the detection result and which selectively executes a first auto-focus operation of detecting a contrast based on the subject image signal processed by the image processing circuit to adjust a focus of the photographing lens (See, e.g., Fig. 24, steps S134-S138.), and a second auto-focus operation of performing a distance-measuring operation by the distance-measuring device to adjust the focus of the photographing lens in accordance with a result of the distance-measuring operation (See, e.g., Fig. 24, steps S134 and S140.).** In contrast, the Nakata and Watanabe patents, either taken alone, or in combination, neither teach, nor suggest, such **a CPU which detects a brightness distribution of the pair of subject images to select either one of the first and second auto-focus operations and which selectively executes a first auto-focus operation (based on contrast detection) and a second auto-focus operation (based on distance-measurement) in a focusing apparatus of independent claim 24.**

Thus, independent claim 24 is not rendered obvious by the Nakata, Watanabe and Morimoto patents for at least the foregoing reason.

With respect to claim 29, the Nakata patent merely discloses the phase difference system of distance-measurement apparatus, and the Watanabe patent discloses a combination of the mountain-climbing AF and another distance measurement. Furthermore, these patents do not disclose that **the second auto-focus section is selected in accordance with the ratio of a low brightness portion to the entire brightness portion, which is indicated by a subject image signal.**

Specifically, independent amended claim 29 recites a camera including a focusing apparatus comprising: **a change section which selects the second auto-focus section in accordance with a ratio of a low-brightness portion of a brightness distribution detected by the detecting section** (See, e.g., Fig. 24, steps S133, S134 and S140.) **and which changes an aperture value of the diaphragm mechanism in the photographing lens and a sensitivity of the image pickup device** (See, e.g., Fig. 24, steps S141 and S142.). In contrast, the Nakata and Watanabe patents, either taken alone or in combination, neither teach, nor suggest, such a change section in a focusing apparatus.

Thus, independent claim 29 is not rendered obvious by the Nakata, Watanabe and Morimoto patents for at least the foregoing reason.

Claims 31-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Nakata patent in view of U.S. Patent No. 5,771,123 ("the Hamano patent"). Since these claims have been canceled, this ground or rejection is rendered moot with respect to these claims.

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**Conclusion**

In view of the foregoing amendments and remarks, the applicant respectfully submits that the pending claims are in condition for allowance. Accordingly, the applicant requests that the Examiner pass this application to issue.

Any arguments made in this amendment pertain **only** to the specific aspects of the invention **claimed**. Any claim amendments or cancellations, and any arguments, are made **without prejudice to, or disclaimer of**, the applicant's right to seek patent protection of any unclaimed (e.g., narrower, broader, different) subject matter, such as by way of a continuation or divisional patent application for example.

Respectfully submitted,

July 16, 2007

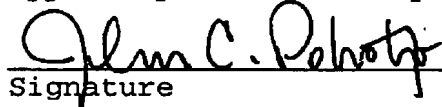
  
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